



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/317,719 | 05/24/1999 | JEOM JAE KIM | 39574.18 | 9474 |

7590 09/21/2004

Birch, Stewart, Kolasch & Birch, LLP
P.O.Box 747
Falls Church, VA 22040

| |
|----------|
| EXAMINER |
|----------|

NGUYEN, DUNG T

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2871

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/317,719

Applicant(s)

KIM, JEOM JAE

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2871

DETAILED ACTION

Applicants' amendment dated 11/07/2004 has been received and entered. By the amendment, claims 1-52 are now pending in the application.

Applicant's arguments with respect to claims 31-52 have been considered but are moot in view of the new ground(s) of rejection as follow:

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-30 are rejected under 35 U.S.C 103(a) as being unpatentable over Applicant's admitted prior art (APA), figure 1, in view of Uchiyama, US Patent No. 5,822,030.

Regarding claims 1-6, 9-16, 19-26 and 29-30, APA discloses a liquid crystal display (LCD) device (figure 1) and the method of forming the same comprising a first panel (a color substrate 1a) with a transparent common electrode (8), a second panel (a pixel substrate 1b) with a transparent pixel electrode (47), a transparent pad (15/25), a transparent pad terminal (57/67) extending in a horizontal direction along a surface of the second panel. APA does not disclose

Art Unit: 2871

the pad/pad terminal spaced from an edge of the first panel in the horizontal direction by a desired distance. Uchiyama does disclose a pad (20) and/or a pad terminal (16) being formed in a horizontal direction along a surface of the second panel as well as spaced from an edge of the first panel in the horizontal direction by a desired distance (see figure 2). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ a pad/pad terminal along a substrate surface in a horizontal direction and spaced from an edge of the first panel in the horizontal direction by a desired distance as shown by Uchiyama for easily assembling (col. 3, lines 36-38).

Regarding claims 7-8, 17-18 and 27-28, the modification to the APA discloses the claimed invention as described above except for a cut protection member formed on the second substrate. One of ordinary skill in the art would have realized the desire to form a protection layer (a protection member) on a second substrate for protecting purpose. Therefore, it would have been obvious to one of ordinary skill in the art to form a cut protection member on a second substrate of an LCD device in order to protect a substrate from damage.

4. Claims 31-52 are rejected under 35 U.S.C 103(a) as being unpatentable over Applicant's admitted prior art (APA), figure 1, in view of Uchiyama, US Patent No. 5,822,030, further in view of Takasu et al., US Patent No. 5,434,433.

Regarding claims 31-52, the modification to the APA discloses the claimed invention as described above except for the step of cutting a portion of the color substrate, so as the terminal are expose. Takasu et al. do disclose the step of cutting a color substrate after joining two substrates and injecting liquid crystal material therebetween (see figure 5). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made employ the step

Art Unit: 2871

of cutting a color substrate to expose the pad terminal as shown by Takasu et al. in order to facilitate external connection (col. 7, ln. 30).

Conclusion

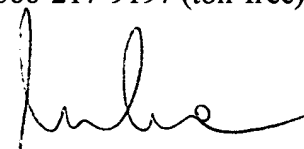
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
09/15/2004



***Dung Nguyen
Primary Examiner
Art Unit 2871***